

**Amendments to the Claims:**

1. (previously presented) A conjugate of a single antibody fragment covalently attached to a single polyethylene glycol (PEG) molecule, wherein the antibody fragment is an Fab' comprising (1) a first chain that is either a light chain or a heavy chain and (2) a first opposite chain that is either a heavy chain opposite the first light chain or a light chain opposite the first heavy chain, wherein the PEG molecule is covalently attached to a first cysteine residue in the first chain that would ordinarily form a disulfide bridge with a second cysteine residue in the first opposite chain, wherein the disulfide bridge is avoided by the substitution of another amino acid residue for the second cysteine residue in the first opposite chain, wherein the apparent size of the conjugate is at least about 500 kD.
2. (withdrawn) The conjugate of claim 1, wherein the apparent size of the conjugate is at least about 800 kD.
3. (withdrawn) The conjugate of claim 1, wherein the apparent size of the conjugate is at least about 1,400 kD.
4. (withdrawn) The conjugate of claim 1, wherein the apparent size of the conjugate is at least about 1,800 kD.
5. (previously presented) The conjugate of claim 1, wherein the apparent size of the conjugate is at least about 8 fold greater than the apparent size of the antibody fragment.
6. (withdrawn) The conjugate of claim 5, wherein the apparent size of the conjugate is at least about 15 fold greater than the apparent size of the antibody fragment.
7. (withdrawn) The conjugate of claim 6, wherein the apparent size of the conjugate is at least about 25 fold greater than the apparent size of the antibody fragment.

8-18. (canceled)

19. (previously presented) The conjugate of claim 1 wherein the PEG has an average molecular weight of at least about 20 kD.

20. (withdrawn) The conjugate of claim 19 wherein the PEG has an average molecular weight of at least about 40 kD.

21. (previously presented) The conjugate of claim 19 wherein the PEG is a single chain molecule.

22. (withdrawn) The conjugate of claim 20 wherein the PEG is a branched chain molecule.

23-25. (canceled)

26. (previously presented) The conjugate of claim 1 wherein the antibody fragment comprises an antigen binding site that binds to human interleukin-8 (IL-8).

27. (withdrawn) The conjugate of claim 26, wherein the PEG has an average molecular weight of at least about 30 kD.

28. (previously presented) The conjugate of claim 26 wherein the antibody fragment comprising the anti-human IL-8 antigen binding site is humanized.

29. (previously presented) The conjugate of claim 28 wherein the anti-human IL-8 antigen binding site comprises the complementarity determining regions of a light chain polypeptide amino acid sequence selected from the group consisting of the 6G4V11N35A light chain polypeptide amino acid sequence of Fig. 36 (SEQ ID NO:56) and the 6G4V11N35E light chain polypeptide amino acid sequence of Fig. 45 (SEQ ID NO:62).

30. (canceled)

31. (previously presented) A composition comprising the conjugate of claim 1 and a carrier.

32. (previously presented) The composition of claim 31 that is sterile.

33. (previously presented) The conjugate of claim 1, wherein the covalent structure of the conjugate is free of any matter other than the antibody fragment and PEG.

34. (previously presented) The conjugate of claim 1, wherein the covalent structure of the conjugate incorporates one or more nonproteinaceous labels, and wherein the covalent structure of the conjugate is free of any matter other than the antibody fragment, PEG and nonproteinaceous label molecules that form the conjugate.

35. (previously presented) The conjugate of claim 34 wherein at least one nonproteinaceous label is a radiolabel.

36. (previously presented) The conjugate of claim 1, wherein the second cysteine residue is substituted with a serine residue in the first opposite chain.